Assignment Network Theory

TEMPLECITY INSTITUTE OF TECHNOLOGY & ENGINEERING (TITE)

Writing Space

CHAPTER-I

Q1. Write down the definations and unit
   a. Magnetizing force
   b. flux
   c. Intensity.

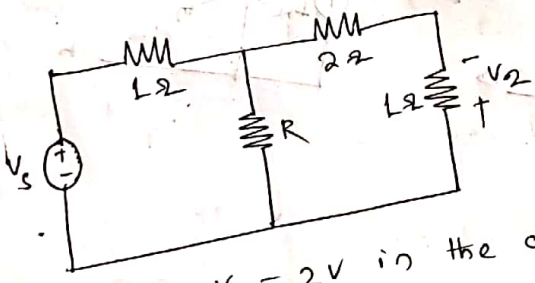
2. Relationship between flux, flux density and magnetizing force.

3. What is self Inductance and Mutual Inductance. ?

CHAPTER-II

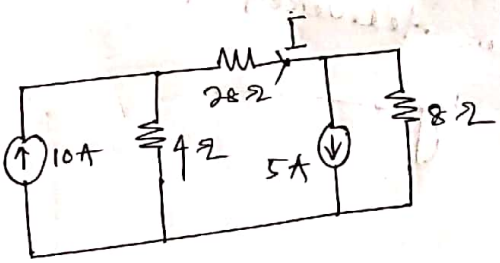
1. Write down the procedure for solving a circuit by Node Analysis.

2. Write down the procedure for solve a circuit by Mesh Analysis.

3. 

Given $I_1 = 1A$, $V_2 = 2V$ in the circuit shown in fig, the V_s is given by _____.

4. In the circuit of fig., the current I will be ___.



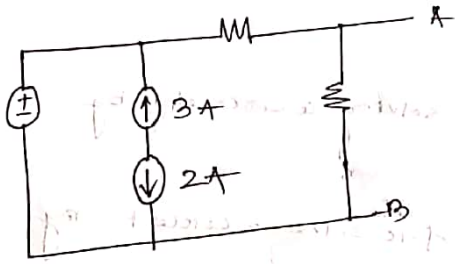
CHAPTER - III

1. Write down the statements
   - Thevinin's Theorem
   - Nortons Theorem.

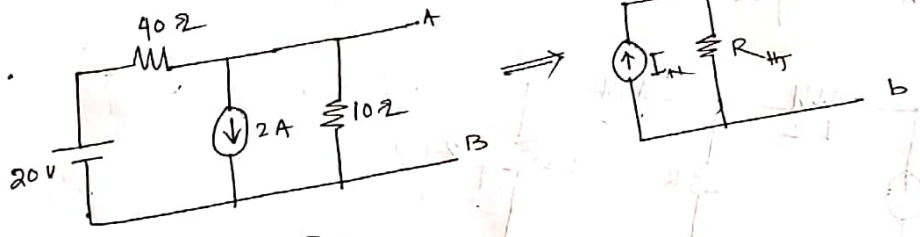
2. What is Maximum power Transfer Theorem.

UNIT - IV

3. The Thevinins equivalent across the Terminals 'A-B' in the fig. is.

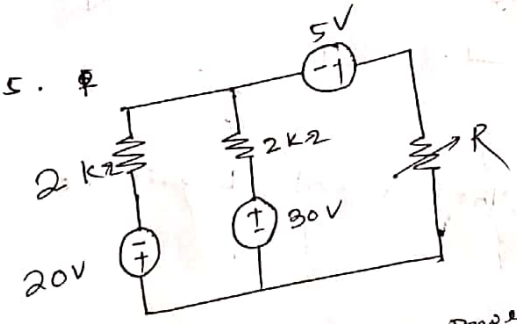


4.



Find I_N & R_{th}.

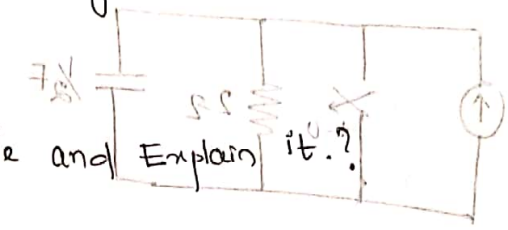
5.



Find The Maximum power delivered to the load Resistore 'R' is given by ——.

CHAPTER – IV

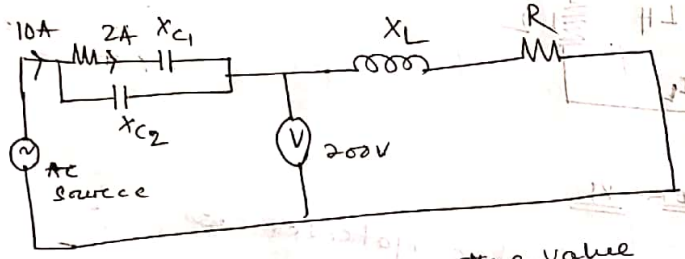
1. What is power factor, power angle, RMS and peak value.



2. What is power Triangle and Explain it.?

3. What is Reasonant frequency, Bandwidth, Q-factor in series circuit

4. Relationship between phase and line quantities in star & delta connection.

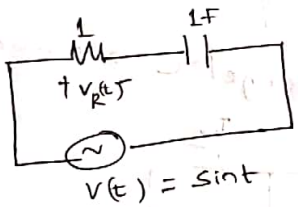
5. 

Dissipated power.
$P_T = 1600$ watt
$V = 200\,V = V_{rms}$
$X_L = ?$
$(P.f)_{load} = ?$

* In this circuit all the value are RMS values.

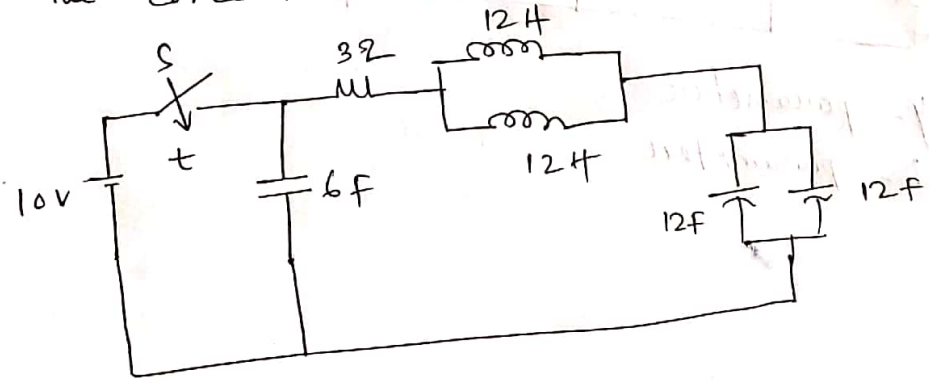
6. $V(t) = -170 \sin(\omega t - \pi/6)$ Volt
$I(t) = 8 \cos(\omega t + \pi/6)$ A
Find P_{Avg}?

CHAPTER – V

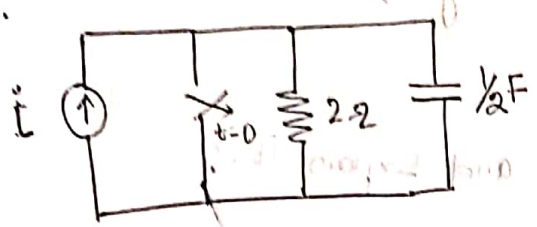
1. 

steady state voltage $V_R(t)$ is —

2. Consider the fegure and Find Time constant of the circeeit

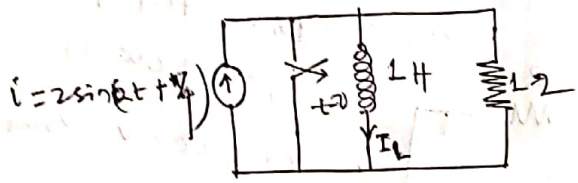


3. In the circuit shown in figure, the steady state voltage across the resistor is ____



$i = 2\cos(t + \pi/4)$

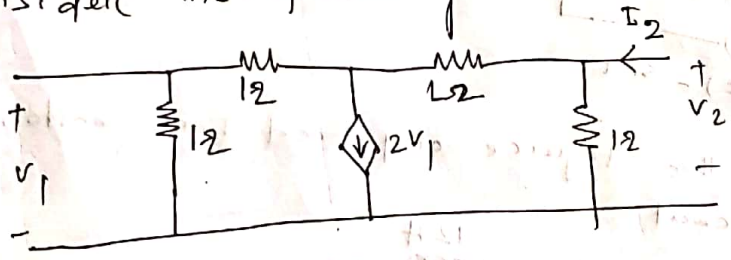
4. In the circuit shown in the figure, the steady state current through Inductor $I_L(t)$ is ____



CHAPTER – VI

1. Write down the 4 parameters Matrices.
   i. Z-parameter
   ii. Y- parameter
   iii. Transmission parameters
   iv. Hybrid parameter
   v. g- parameter.

2. Consider the following ~~Parameter~~ Network.



   a. Y- parameter
   b. h- parameter

Assignment of Network Theory

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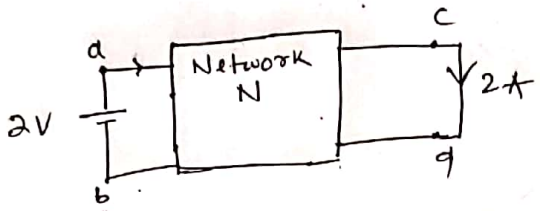
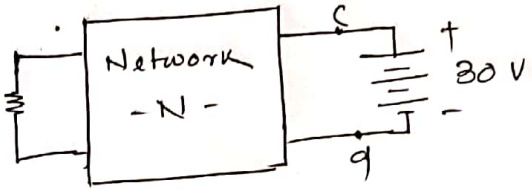
Writing Space

3. Two sets of measurements on a linear passive two-port network are shown in the following fig.

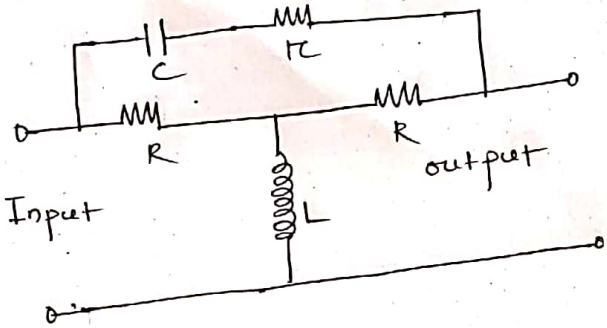




current flowing through the 2Ω resistor. is ____

CHAPTER-VII

1. The circuit shown in the fig., is a ____



Match the List

2.

List-I	List-II
a. $H(s) = \frac{100}{(s^2+50s+100)}$	1. LPF
b. $H(s) = \frac{100}{(s^2+50s+100)}$	2. HPF
c. $H(s) = (1-s)/(1+s)$	3. BPF
d. $H(s) = \frac{s^2+100}{(s^2+50s+100)}$	4. BSF
	5. All pass filter

3. $H(s) = \frac{s^2-s+1}{s^2+2s+1}$ represent a ____ filter.

a) LPF c) HPF

b) BPF d) BSF